PROGRAM CHARTER

FOR

Technical Requirements, Planning and Integration

Program Manager: Michael Tanner

Modeling and Observing Infrastructure Sub-Goal Lead: Michael Tanner

1. EXECUTIVE SUMMARY

A. The NOAA Technical Requirements, Planning and Integration Program (TRP) is a program located under the Modeling, Observing and Infrastructure Sub-Goal. The program exists to manage the development of NOAA's Integrated Observation and Data Management System Architecture, hereafter known as NOAA's Integrated Architecture. This involves managing four major NOAA-wide capabilities:

1) Observation System Architecture (OSA): Responsible for developing and analyzing NOAA's integrated observation target architecture that consists of the blueprint, standards, processes, and investments needed to build an integrated observational capability that delivers higher-value data and products to end-users. Works with the Requirements and Planning capability to assess NOAA's observation requirements relative to current and planned observational capabilities. Maintains NOAA value model to prioritize requirements. Provides investment recommendations to the NOAA Observing Systems Council (NOSC) that comply with the target architecture and best meet NOAA, national, and international observation and data management priorities.

2) Requirements and Planning (RAP): Responsible for the collection, standardization, configuration management, and assessment of all NOAA observation requirements. Develops and implements processes to: Trace NOAA observation requirements up to Performance Measures and down to current, planned, and potential observing capabilities. Verify and validate requirements. Works with the Observation System Architecture (OSA) component to assess observation requirements and identify gaps in capabilities.

3) Data Management Architecture (DMA): Responsible for developing and analyzing NOAA's integrated data management target architecture that consists of the blueprint, standards, processes, and investments needed to build an integrated data management capability that delivers higher-value data and products to end-users. Working with the Data Management Integration Team (DMIT), establishes and exercises the processes outlined by the Global Earth Observation Integrated Data Environment (GEO-IDE) that will enable the integration of NOAA's data management capabilities to maximize the return on its investments.

4) The Radio Frequency Management function manages radio frequency (strategic spectrum) requirements for the Department of Commerce and NOAA in accordance with Department Administrative Order (DAO) 201-39. Management of departmental spectrum requirements includes: managing and protecting current frequency authorizations; gaining spectrum certification for new systems; international registration of departmental satellite systems; spectrum planning; and gaining spectrum allocations for future systems (satellite and non-satellite).

B. In addition, the TRP program provides:

1) The Lead for the Modeling and Observing Infrastructure (MOBI) Sub-Goal.

2) The secretariat for the MOBI Sub-Goal.

3) The secretariat and action staff for the NOAA Observing Systems Council (NOSC).

4) The NOAA Co-Chair for the US Group on Earth Observations (GEO) Strategic

Assessment Group (SAG).

5) Resource support for the Global Earth Observation System of Systems (GEOSS) Integration Manager.

2. PROGRAM REQUIREMENTS

A. Requirements Drivers:

1) Executive Orders:

a) U.S. Ocean Action Plan. Build a Global Earth Observation Network, including Integrated Ocean Observations. The United States is playing a lead role in bringing the international community together to develop an integrated, comprehensive, and sustained global earth observing system of systems that includes a substantial ocean component, known as the Global Ocean Observing System (GOOS). The U.S. Integrated Ocean Observing System (IOOS) will be a major element of GOOS and NOAA has the lead.

b) b) Presidential Decision Directive, NSTC-8, National Space Policy, 1996. Defines NOAA's role as having the lead responsibility for managing Federal Space-based civil operational Earth observations necessary to meet civil requirements. In this role, NOAA will acquire data, conduct research and analyses, and make required predictions about the Earth's environment; Consolidate operational U.S. Government civil requirements for data products, and define and operate Earth observation systems in support of operational monitoring.

c) c) Presidential Decision Directive/NSPD15 (2003). U.S. Commercial Remote Sensing Space Policy – The Policy's fundamental goal is to "advance and protect U.S. national security and foreign policy interests by maintaining the nation's leadership in remote sensing space activities, and by sustaining and enhancing the U.S. remote sensing industry."

d) d) Department of Commerce Administrative Order (DAO) 201-39. Directs management of radio frequency (strategic spectrum) requirements that includes: managing and protecting current frequency authorizations; gaining spectrum certification for new systems; international registration of departmental satellite systems; spectrum planning; and gaining spectrum allocations for future systems (satellite and non-satellite).

2) Interagency or International Agreements.

a) Basic agreement between the National Aeronautics and Space Administration and the U.S. Department of Commerce concerning collaborative programs, 1998. Defines principles and guidelines in areas related to environmental satellite programs, specifically including those activities related to the development of space-based capabilities (both the development of new instrumentation and flight opportunities and enhancements to existing systems), and data and information systems, the coordination of research and analysis activities and other areas of collaboration.

3) Policy Directives:

a) NOAA FY 09-13 Program Decision Memorandum dated Jan 31, 2007. Establish new Space Technology, Planning, and Integration Office program under the Satellite Sub-goal. Upon further direction the program was moved to the newly formed Modeling and Observing Infrastructure Sub-Goal in 2007.

b) NOAA Annual Guidance Memorandums FY 2010-2014. The following are two of the priorities NOAA leadership established in the AGM:

- Capable and reliable observations infrastructure
- Observations integration and data management

B. Mission Requirements:

1) Ensure the design of future and current cost-effective NOAA observing and data management system architectures that best satisfy NOAA's mission requirements, fit within the proposed architecture, and incorporate advanced technology while operating efficiently and avoiding unnecessary duplication.

a) Primary drivers are the NOAA FY 2010-2014 Program Decision Memorandum and NOAA Program Review Recommendations, June 2002.

2) Protect current and future frequency spectrum allocations for NOAA Systems.

a) Primary driver is Department of Commerce Administrative Order 201-39

3) Serve as Executive Secretariat and provide analysis capability to the NOAA Observing Systems Council (NOSC).

a) Primary Driver is NOAA Program Review Recommendations, June 2002.

3. LINKS TO NOAA STRATEGIC PLAN

A. Goal Outcomes: TRP provides integration of global environmental observation and data management system data that provide critical support for all four of NOAA's Mission Goals. This contributes to the following Mission Support Outcomes:

1) One NOAA working together, guided by a clear strategic vision for planning, programming, and execution, to achieve NOAA's goals.

2) Ship, aircraft, and satellite programs that ensure continuous observation of critical environmental conditions.

3) Secure, reliable, and robust information flows within NOAA and out to the public.

B. Goal Performance Objectives: Integration of observation and data management systems will enhance NOAA's capabilities to meet Mission Goals, and enable NOAA resources to be applied more efficiently and effectively by reducing duplication, improving coverage, and providing networks to disseminate information when and where it is needed around the world. Moreover, the NOAA Mission Support Goal Performance Objectives affected by this program include:

1) Improve efficiency and performance of financial, administrative, workforce management, acquisition, and other support transactions and services.

2) Increase quantity, quality, and accuracy of satellite data that are processed and distributed within targeted time.

C. Goal Strategies: To provide the best and latest information regarding NOAA observation and data management systems, review and analyze the system portfolios of the goal teams, and develop the NOSC recommendation for the best integrated system portfolio for NOAA from a budget and capability stand point. At the NOAA level TRPO contributes to the following Mission Support Strategies:

1) Provide timely and effective acquisition and delivery of satellite-derived information that supports requirements from the Mission Goals.

2) Employ a planning, programming, budgeting, and execution system to enhance NOAA's capabilities and to guarantee effective delivery of needed products and services.

4. PROGRAM OUTCOMES

A. An integrated global-to-local environmental and ecological observation and data management system portfolio that will continually monitor the complex, symbiotic systems of the ocean, atmosphere, and land, and maximize the mutual benefits of national and international exchange of data.

B. Prudent, integrated, corporate observation and data management system investment decisions that facilitate creation and maintenance of the integrated architecture.

C. The objective of NESDIS radio frequency management is the protection of all radio frequencies used by NOAA satellites in order to insure that such radio frequencies may be used without interference.

5. PROGRAM ROLES AND RESPONSIBILITIES

This program is established and managed with the procedures established in the NOAA Business Operations Manual (BOM). Responsibilities of the Program Manager are described in the BOM. Responsibilities of other major participants are summarized below:

A. NOAA NESDIS provides staff and resources for the TRP function.

B. All Line Offices, Mission Goals, and Programs with observation and environmental information data management requirements and systems participate in data gathering and analytical processes TRP uses to accomplish its tasks.

6. END USERS OR BENEFICIARIES OF PROGRAM

A. NOAA Mission Goal Leads and Program Managers. The TRP Office manages a process by which information on NOAA observation and data management requirements, systems, capabilities, and capabilities gaps are defined, catalogued, and prioritized, and accessible to all of NOAA. This facilitates a corporate view and consistent responses to multiple inquiries.

B. NOAA Program Planning and Integration (PPI), and Program Analysis and Evaluation (PA&E). The TRP databases and analysis capabilities provide critical input into all phases of the Planning, Programming, Budgeting, and Execution System (PPBES) process. TRP adopts a NOAA-wide perspective in assessing and evaluating Program Operating Plans and Mission Goal Program Plans to provide the foundation for observation and data management system investment recommendations submitted by the NOSC to PPI and PA&E. In addition, TRPO conducts analyses and assessments as required in support of the budgeting and execution phases of the PPBES.

C. Interagency/Intergovernmental. TRP leads the integrated architecture effort that is at the forefront of NOAA's participation and leadership in national and international global data collection and reporting efforts, such as the intergovernmental Global Earth Observing Systems of Systems (GEOSS), the U.S. Integrated Earth Observation System (IEOS), and other important observing groups and efforts. The integrated architecture will further integrate NOAA's observing systems, data, and quality control with efforts of other nations to guarantee the best quality and coverage of Earth observing data.